



Trace Analyzer for water

Powered by German Hardware

GreenMon Online-Analyser

The GreenMon is a fully automatic,
wet-chemical multichannel online analyser.

It detects trace concentrations in fluids.

The operating interface is especially user-friendly.

Features:

- New photometer technology with high stability allows trustworthy measurements at low trace levels
- Many functions are included in the standard version, eg. Cyclical self-calibration and dilution processes
- RS-232/RS-485, LAN, CAN-bus
- Intelligent event handling via SMS, Fax or E-Mail
- Communication via TCP/IP over LAN, (optional W-LAN, GSM, GPRS and UMTS)
- Comprehensive software products are offered for archiving (SQL database), programming, visualization and real-time representation
- Administration of operation and analysis data in a MYSQL databank with data interface for integration, interrogation and further analysis of the data
- Use of wet chemical methods (Ionometry, Colorimetry, ...)
- Fully automatic operation with self-monitoring
- Compact user-friendly construction with minimal maintenance expenditure
- Actuation and control (PID) of metering pumps, metering units, valves, analog and digital, PLC functionality
- Implementation of PCS functions e.g. connection of external sensors and control via external actuators and calculation of complex parameters
- SCADA option with Remote Display and Operation from a PC via cable, Intranet, Internet, GPRS or UMTS
- Easy maintenance due clear and easy setup and easy reachable parts.
- Color TFT touch Display with good readability

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GreenMon Manganese

GreenMon Photometer Manganese

Full automatic online analyzer for measuring medium concentrations in fluids according to wet chemical methods

The Photometer Manganese version of the GreenMon system comprises the following equipment:

Analyzer unit, control and measurement electronics in metal cabinet

Number of probe channels: 1 (optional up to 10 Channels on request)

Procedure : Manganese concentrations are measured with the Formaldoxime method following the International Standard ISO 6333 method. Manganese solutions form a red product after reaction with formaldoxime at an elevated pH. For the two step reaction 3 reagents are added to a sample.

The Interference of Iron is prevented by using a Masking Solution.

Range: 0 - 0,2 ppm to 0 - 5 ppm

Higher ranges up to 0 - 100 ppm with Dilution

Interferences: Nickel (6 / 1), Copper (250 / 1), Uranium, Vanadium, Bismuth, Mercury, Titanium may form turbidity

Measuring time: approx 15 min

System description GreenMon:

- Optimal dilution rate programmable
- Integrated PC with Linux-based operating system
- Graphical user interface with interactive touch screen operation
- Full network capability via direct LAN connection
- All standard communications interfaces are supported CAN-Bus, LAN, Modem and RS232 or RS485
- Protocols Modbus TCP and Modbus serial, other on request
- (Profibus DP optional)
- Connection of additional sensors (e.g. pH, conductivity, O₂, Turbidity, ISA spectrometer or other) is optional via the CAN-Bus.

Modem: The following modem types are optional available: UMTS, ISDN or Analog modem.

Technical Details:

Power 110/220 VAC or 24V DC

Protection classification: IP 54

Dimensions (HxWxD): Analyzer cabinet: 800 x 600 x 400 mm
Reagent cabinet: 650 x 600 x 400 mm
Total: 1450 x 600 x 400 mm

Cabinet material: SS 316

Sample pressure: 0 bar (max 0.05 bar overpressure)

Sample temperature: 10 ... 35°C

Sample flow rate: 2... 10 l/h, no suspended solids

Environmental temperature: 15 ... 35°C

Operating system: Embedded Linux

Power consumption (average): 45W

Actuators:

2x current output 4 - 20mA alternatively 0 - 10V

2x relays for alarm function

Measurement, control inputs and digital outputs, Interfaces:

1x Ethernet (incl. MOD Bus)

1x RS232 or RS485 (incl. MOD Bus)

1x CAN bus (for connecting further GreenMon system modules for sensors and actuators)

1x modem slot for UMTS, ISDN or analog modem (modem optional)

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